Malaria Elimination Guide to Targeted Surveillance and Response in High-Risk Populations

Key messages

- Implementing targeted surveillance and response interventions in order to reduce malaria transmission among high-risk populations (HRPs) is a key strategy for malaria elimination.
- National malaria control programs (NMCPs) often do not have the epidemiological evidence and detailed knowledge they need to determine optimal selection and delivery of interventions for specific populations.
- In response, the MEI developed the Malaria Elimination Guide to Targeted Surveillance and Response in High-Risk Populations (HRP Guide) to provide NMCPs with practical operational guidance to design and implement data-driven and targeted surveillance and response activities for populations at highest risk of malaria.
- Use of the HRP Guide will provide NMCPs with actionable and detailed information to tailor routine surveillance and delivery of interventions for HRPs, with the aim of improving coverage and impact on malaria transmission.

What is surveillance and response for high-risk populations?

High-risk populations (HRPs) are diverse groups of people defined by shared socio-demographic, geographic and/or behavioral characteristics that place them at higher risk of



About the Toolkit

The MEI Malaria Elimination Toolkit is a set of proven tools and approaches to help malaria endemic countries accelerate progress toward malaria elimination. Developed by the Malaria Elimination Initiative (MEI) at the University of California, San Francisco (UCSF), the toolkit addresses the unique challenges faced by national malaria programs in heterogeneous transmission settings. These tools have been used successfully at the national and/or subnational levels, leading to important changes in malaria policy and practice.

The MEI recognizes that implementing any new tool or approach can be challenging. Technical assistance is available to support the tailoring and implementation of all MEI tools. Please visit our website shrinkingthemalariamap.org or contact us for more information at mei@ucsf.edu.

infection, such as low access to health services and interventions, or specific occupational exposures away from a person's home. In low-endemic contexts, these populations are particularly vulnerable to or act as a reservoir of infection and those with high mobility may drive seasonal transmission.

Decreasing and ultimately reducing malaria transmission to zero among HRPs is essential to achieving and sustaining malaria elimination. However, detecting infections and ensuring access to malaria services and effective interventions remains a key challenge in malaria HRPs, often due to population mobility. Surveillance and response consists of the continuous, systematic collection, analysis and interpretation of diseasespecific data and use in planning, implementing and evaluating public health practice. For malaria, most programs rely on data from passive case detection to stratify geographies, identify index cases and target proactive and reactive interventions to households. This approach often does not adequately capture specific HRPs who are less likely to present at health facilities or mobile populations who may be absent at follow up, and does not address transmission occurring away from the household.

Special approaches are often required to plan for surveillance and response in HRPs, in order to successfully improve coverage and overcome barriers of community engagement. These approaches include identifying and understanding specific characteristics of populations at high-risk for malaria, and then using this information to adapt routine surveillance and interventions for accelerated impact on transmission.

What is the HRP Guide and why is it useful?

NMCPs frequently request epidemiological support to identify specific attributes of HRPs, and improve tracking, access, and delivery of malaria interventions. Early engagement with these approaches and integration into routine surveillance strategies, as much as possible, is likely to accelerate impact, ensure equity and help to prepare programs for a shift in strategy as transmission declines.

The HRP Guide provides NMCPs with a set of approaches to provide actionable information to tailor surveillance and response strategies. The four modules of the Guide align with the steps of the surveillance cycle (Figure 1), which is a process to iteratively improve surveillance systems, identify and track the highest risk populations, and refine targeted malaria interventions. Each module, written in alignment with WHO guidelines, contains instructions on methods to gather and analyze the necessary information that will inform a more resilient surveillance and response platform.

Who should use this tool and how?

The HRP Guide is intended for use by NMCP program managers, M&E officers, and their implementing partners, including non-governmental organizations and researchers in

countries with low malaria transmission. Not all countries will need to implement all modules, and implementation of the suggested modules is dependent on local circumstances and level of knowledge of HRPs. When used together, the Guide's modules aim to incorporate evidence, tracking, and targeting of HRPs to ensure that surveillance and response strategies are based on the current evidence about how, where, and why transmission is occurring.

Figure 1. Generating and using evidence: steps in the surveillance cycle for targeting HRPs



The Malaria Elimination Initiative (MEI) at the University of California, San Francisco (UCSF) believes a malaria-free world is possible within a generation. As a forward-thinking partner to malaria eliminating countries and regions, the MEI generates evidence, develops new tools and approaches, disseminates experiences, and builds consensus to shrink the malaria map. With support from the MEI's highly skilled team, countries around the world are actively working to eliminate malaria.

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